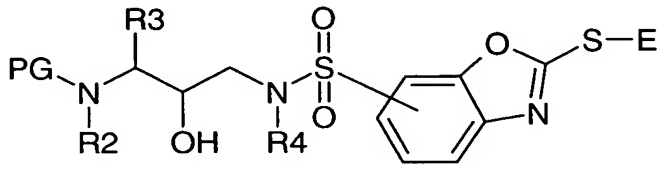
LISTING OF CLAIMS

This listing of claims replaces all prior versions, and listings, of claims in the captioned application.

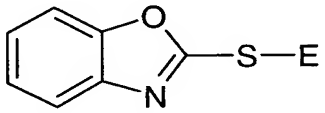
1. (Currently Amended) A method for preparing a compound of formula (6),



(6)

and salts, stereoisomeric forms, and racemic mixtures thereof, wherein ~~characterized in that~~ said method comprises the following steps:

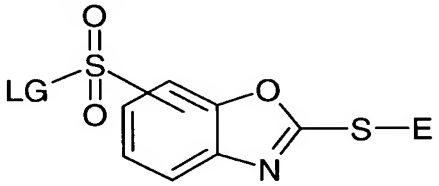
(a) transforming ~~starts from~~ a compound of formula (2),



(2)

wherein E is an electrophilic moiety;

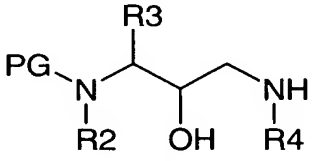
~~transforming compound of formula (2)~~ into a compound of formula (3),



(3)

wherein LG is a leaving group; and

(b) reacting compound of formula (3) with a compound of formula (5),



(5)

wherein

PG is a protecting group;

R_2 is hydrogen or C_{1-6}alkyl;

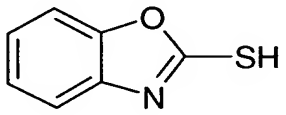
R_3 is C_{3-7}cycloalkyl, aryl, Het^1, Het^2, or C_{1-6}alkyl optionally substituted with C_{3-7}cycloalkyl, aryl, Het^1, or Het^2; wherein each C_{3-7}cycloalkyl, aryl, Het^1, and Het^2 may be optionally substituted with one or more groups selected from oxo, C_{1-6}alkyloxy, C_{1-6}alkyl,C_{1-6}alkylsulfonyl, aminosulfonyl, amino, C_{1-6}alkylcarbonylamino, hydroxyC_{1-6}alkyl, cyano, C_{1-6}alkyloxycarbonyl, aminocarbonyl, halogen or trifluoromethyl, wherein each amino maybe mono- or disubstitued with C_{1-6}alkyl;

R_4 is selected from the group comprising hydrogen, C_{1-4}alkyloxycarbonyl, carboxyl, aminocarbonyl, mono- or di(C_{1-4}alkyl)aminocarbonyl, C_{3-7}cycloalkyl, C_{2-6}alkenyl, C_{2-6}alkynyl, or C_{1-6}alkyl optionally substituted with one or more substituents each independently selected from aryl, Het^1, Het^2, C_{3-7}cycloalkyl, C_{1-4}alkyloxycarbonyl, carboxyl, aminocarbonyl, mono- or di(C_{1-4}alkyl)aminocarbonyl, aminosulfonyl, C_{1-4}alkyl-$S(=O)_t$, hydroxy, cyano, halogen and amino optionally mono- or disubstituted where the substituents are each independently selected from C_{1-4}alkyl, aryl, arylC_{1-4}alkyl, C_{3-7}cycloalkyl, C_{3-7}cycloalkylC_{1-4}alkyl, Het^1, Het^2, Het^1C_{1-4}alkyl and Het^2C_{1-4}alkyl; and

t is zero, one or two.

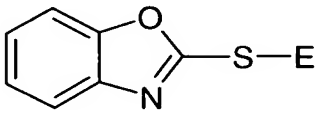
2. (Currently Amended) The ~~A~~ method according to claim 1 for preparing a compound of formula (6), said method comprising ~~characterized in that said method comprises~~ the steps of:

(a) alkylating a compound of formula (1)



(1)

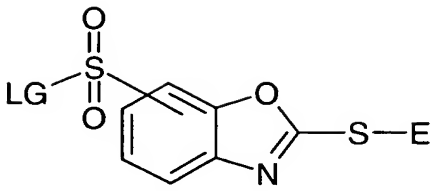
resulting int~~o~~ a compound of formula (2);



(2)

wherein E is a C_{1-6}alkyl;

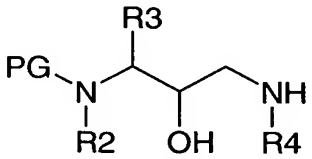
(b) reacting said compound of formula (2) with a sulfonation agent, resulting in a compound of formula (3);



(3)

wherein LG is a leaving group; and

(c) coupling compound of formula (3) with a compound of formula (5).

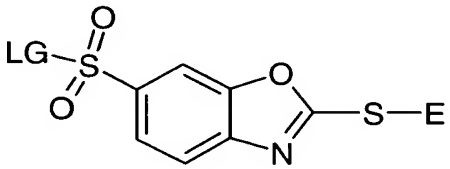


(5)

wherein PG is a protecting group; and

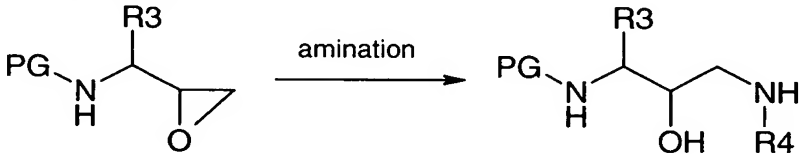
wherein R_2, R_3, and R_4 are as claimed in claim 1.

3. (Currently Amended) The ~~A~~ method according to claim 1 ~~any one of claims 1 to 2, characterized in that~~ wherein said compound of formula (3) is a compound of formula (3''').



(3''')

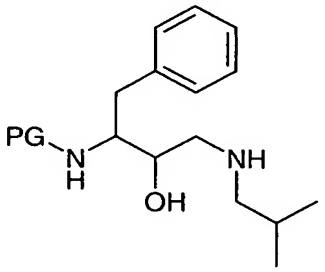
4. (Currently Amended) A method according to claim 1~~any one of claims 1 to 3, characterized in that~~ wherein said compound of formula (5) is obtained by amination of an epoxide-containing compound of formula (4), and the amination reagent is H_2N-R_4, ~~wherein R_4 is as claimed in any one of claims 1 to 3.~~



(4) (5)

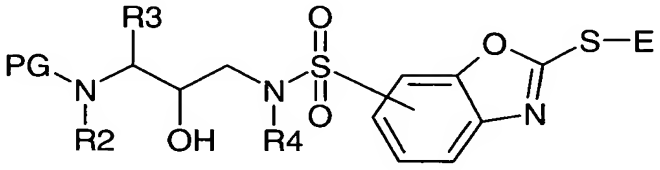
wherein R_4 is defined as in claim 1.

5. (Currently Amended) The ~~A~~ method according to claim 1~~any one of claims 1 to 4~~, wherein said compound of formula (5) is compound of formula (5').



(5')

6. (Currently Amended) A compound having formula (6)



(6)

and salts, stereoisomeric forms, and racemic mixtures thereof, wherein ~~characterized in that~~ **PG, R_2, R_3, R_4,** and **E** are as defined in claim 1~~any one of claims 1 to 5~~.

7. (Currently Amended) A compound according to claim 6, wherein ~~characterized in that~~

R_2 is hydrogen;

R_3 is arylC_{1-4}alkyl, arylmethyl, or phenylmethyl; and

R_4 is unsubstituted C_{1-6}alkyl or C_{1-6}alkyl substituted with one or more substituents selected from aryl, Het^1, Het^2, C_{3-7}cycloalkyl and amino optionally mono- or disubstituted where the substituents are selected from C_{1-4}alkyl, aryl, Het^1 and Het^2.

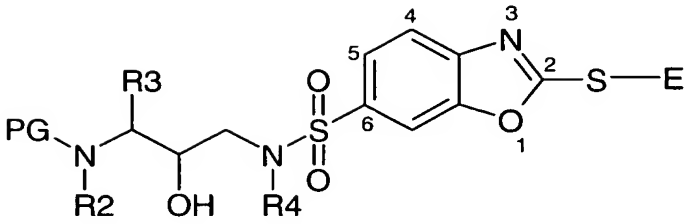
8. (Currently Amended) A compound according to claim 6, wherein ~~any one of claims 6 to 7, characterized in that~~

R_2 is hydrogen;

R_3 is phenylmethyl; and

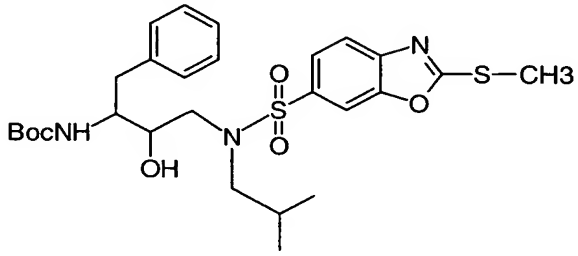
R_4 is isobutyl.

9. (Currently Amended) A compound according to claim 6, wherein said ~~any one of claims 6 to 8, characterized in that the~~ compound has formula (6'').



(6'')

10. (Currently Amended) A compound according to claim 6 wherein ~~any one of claims 6 to 9, characterized in that~~ the compound has formula (6''').

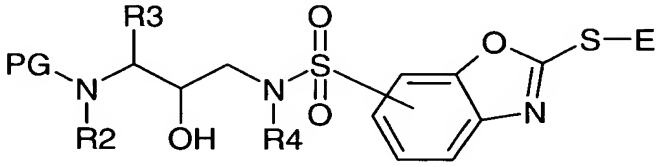


(6''')

11. (Currently Amended) A compound according to claim 6 wherein ~~any one of claims 6 to 10, characterized in that~~ said compound comprises ~~is in the form of~~ a salt selected from trifluoroacetate, fumarate, chloroacetate and methanesulfonate.

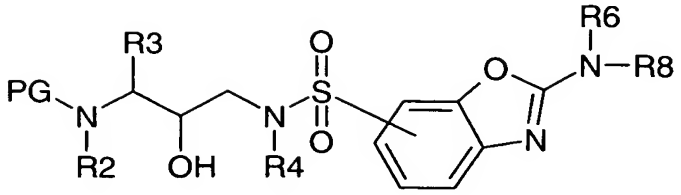
12. (Currently Amended) The method of claim 1, ~~A method for preparing a compound of formula (9), wherein said method comprises the methods according to any one of claims 1 to 5, characterised in that said method~~ further comprise~~s~~ing the steps of:

(a) aminating a compound of formula (6)



(6)

and salts, stereoisomeric forms, and racemic mixtures thereof, wherein PG, R_2, R_3, R_4, and E are as defined in claim 1, to obtain compound of formula (7), ~~wherein~~



(7)

wherein wherein PG, R_2, R_3, R_4, and E are as defined in claim 1; and

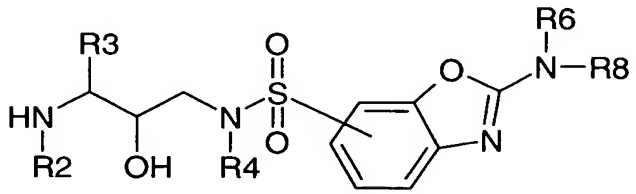
$\mathbf{R_6}$ is hydrogen, hydroxy, C_{1-6}alkyl, Het^1C_{1-6}alkyl, Het^2C_{1-6}alkyl, aminoC_{1-6}alkyl whereby the amino group may optionally be mono-or di-substituted with C_{1-4}alkyl;

$\mathbf{R_8}$ is hydrogen, C_{1-6}alkyl, or -**A**-$\mathbf{R_7}$;

A is C_{1-6}alkanediyl, -C(=O)-, -C(=S)-, -$S(=O)_2$-, C_{1-6}alkanediyl-C(=O)-, C_{1-6}alkanediyl-C(=S)- or C_{1-6}alkanediyl-$S(=O)_2$-; whereby the point of attachment to the nitrogen atom is the C_{1-6}alkanediyl group in those moieties containing said group;

$\mathbf{R_7}$ is C_{1-6}alkyloxy, Het^1, Het^1oxy, Het^2, Het^2oxy, aryl, aryloxy, C_{3-7}cycloalkyl, or optionally mono- or disubstituted amino; and in case -**A**- is other than C_{1-6}alkanediyl then $\mathbf{R_7}$ may also be C_{1-6}alkyl, Het^1C_{1-4}alkyl, Het^1oxyC_{1-4}alkyl, Het^2C_{1-4}alkyl, Het^2oxyC_{1-4}alkyl, arylC_{1-4}alkyl, aryloxyC_{1-4}alkyl or amino-C_{1-6}alkyl; whereby each of the amino groups in the definition of $\mathbf{R_7}$ may optionally be substituted with one or more substituents selected from C_{1-4}alkyl, C_{1-4}alkylcarbonyl, C_{1-4}alkyloxycarbonyl, aryl, arylcarbonyl, aryloxycarbonyl, Het^1, Het^2, arylC_{1-4}alkyl, Het^1-C_{1-4}alkyl or Het^2C_{1-4}alkyl ; and -**A**-$\mathbf{R_7}$ may also be hydroxyC_{1-6}alkyl; and $\mathbf{R_6}$ and -**A**-$\mathbf{R_7}$ taken together with the nitrogen atom to which they are attached may also form Het^1 or Het^2;

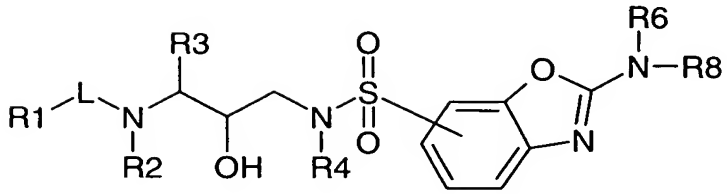
(b) deprotecting the compound of formula (7) to obtain compound of formula (8),



(8)

wherein R_2, R_3, R_4, R_6, and R_8 are as defined in step (a) and

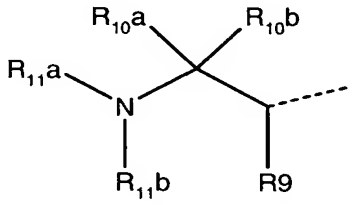
(c) coupling a radical of formula $\mathbf{R_1}$-**L**- to obtain compound of formula (9),



(9)

and *N*-oxides, salts, stereoisomeric forms, racemic mixtures, prodrugs, esters and metabolites thereof, wherein

$\mathbf{R_1}$ is selected from the group comprising hydrogen, C_{1-6}alkyl, C_{2-6}alkenyl, arylC_{1-6}alkyl, C_{3-7}cycloalkyl, C_{3-7}cycloalkylC_{1-6}alkyl, aryl, Het^1, Het^1C_{1-6}alkyl, Het^2, Het^2C_{1-6}alkyl; and $\mathbf{R_1}$ may also be a radical of formula (10)



(10)

$\mathbf{R_9}$, $\mathbf{R_{10a}}$ **and** $\mathbf{R_{10b}}$ are, each independently, hydrogen, C_{1-4}alkyloxycarbonyl, carboxyl, aminocarbonyl, mono- or di(C_{1-4}alkyl)aminocarbonyl, C_{3-7}cycloalkyl, C_{2-6}alkenyl, C_{2-6}alkynyl or C_{1-4}alkyl optionally substituted with aryl, Het^1, Het^2, C_{3-7}cycloalkyl, C_{1-4}alkyloxycarbonyl, carboxyl, aminocarbonyl, mono- or di(C_{1-4}alkyl)-aminocarbonyl, aminosulfonyl, C_{1-4}alkyl$S(O)_t$, hydroxy, cyano, halogen or amino optionally mono- or disubstituted where the substituents are each independently selected from C_{1-4}alkyl, aryl, arylC_{1-4}alkyl, C_{3-7}cycloalkyl, C_{3-7}cycloalkylC_{1-4}alkyl, Het^1, Het^2, Het^1C_{1-4}alkyl and
Het^2C_{1-4}alkyl; whereby R_9, R_{10a} and the carbon atoms to which they are attached may also form a C_{3-7}cycloalkyl radical;

when L is -O–C_{1-6}alkanediyl-C(=O)- or –NR_{12}-C_{1-6}alkanediyl-C(=O)-, **then** $\mathbf{R_9}$ may also be oxo;

$\mathbf{R_{11a}}$ is selected from the group comprising hydrogen, C_{2-6}alkenyl, C_{2-6}alkynyl, C_{3-7}cycloalkyl, aryl, aminocarbonyl optionally mono- or disubstituted, aminoC_{1-4}alkylcarbonyloxy optionally mono- or disubstituted, C_{1-4}alkyloxycarbonyl, aryloxycarbonyl, Het^1oxycarbonyl, Het^2oxycarbonyl, aryloxycarbonylC_{1-4}alkyl, arylC_{1-4}alkyloxycarbonyl, C_{1-4}alkylcarbonyl, C_{3-7}cycloalkylcarbonyl, C_{3-7}cycloalkyl-C_{1-4}alkyloxycarbonyl, C_{3-7}cycloalkylcarbonyloxy, carboxylC_{1-4}alkylcarbonyloxy, C_{1-4}alkylcarbonyloxy, arylC_{1-4}alkylcarbonyloxy, arylcarbonyloxy, aryloxycarbonyloxy, Het^1carbonyl, Het^1carbonyloxy, Het^1C_{1-4}alkyloxycarbonyl, Het^2carbonyloxy,

Het^2C_{1-4}alkylcarbonyloxy, Het^2C_{1-4}alkyloxycarbonyloxy or C_{1-4}alkyl optionally substituted with aryl, aryloxy, Het^2 or hydroxy; wherein the substituents on the amino groups are each independently selected from C_{1-4}alkyl, aryl, arylC_{1-4}alkyl, C_{3-7}cyclo-alkyl, C_{3-7}cycloalkyl
C_{1-4}alkyl, Het^1, Het^2, Het^1C_{1-4}alkyl and Het^2C_{1-4}alkyl;

$\mathbf{R_{11b}}$ is selected from the group comprising hydrogen, C_{3-7}cycloalkyl, C_{2-6}alkenyl,
C_{2-6}alkynyl, aryl, Het^1, Het^2 or C_{1-4}alkyl optionally substituted with halogen, hydroxy, C_{1-4}alkyl$S(=O)_t$, aryl, C_{3-7}cycloalkyl, Het^1, Het^2, amino optionally mono- or disubstituted where the substituents are each independently selected from C_{1-4}alkyl, aryl, arylC_{1-4}alkyl, C_{3-7}cycloalkyl, C_{3-7}cycloalkylC_{1-4}alkyl, Het^1, Het^2, Het^1C_{1-4}alkyl and Het^2C_{1-4}alkyl;

whereby $\mathbf{R_{11b}}$ may be linked to the remainder of the molecule via a sulfonyl group; and

L is selected from the group comprising -C(=O)-, -O-C(=O)-, $-NR_{12}$-C(=O)-, -O–C_{1-6}alkanediyl-C(=O)-, $-NR_{12}$-C_{1-6}alkanediyl-C(=O)-, $-S(=O)_2$-, -O-$S(=O)_2$-, $-NR_{12}$-$S(=O)_2$ whereby either the C(=O) group or the $S(=O)_2$ group is attached to the NR_2 moiety; whereby the C_{1-6}alkanediyl moiety is optionally substituted with a substituent selected from hydroxy, aryl, Het^1, and Het^2;
$\mathbf{R_{12}}$ is hydrogen, C_{1-6}alkyl, C_{2-6}alkenyl, arylC_{1-6}alkyl, C_{3-7}cycloalkyl, C_{3-7}cycloalkylC_{1-6}alkyl, aryl, Het^1, Het^1C_{1-6}alkyl, Het^2, Het^2C_{1-6}alkyl;

$\mathbf{R_2}$ is hydrogen or C_{1-6}alkyl;

$\mathbf{R_3}$ is C_{3-7}cycloalkyl, aryl, Het^1, Het^2, or C_{1-6}alkyl optionally substituted with C_{3-7}cycloalkyl, aryl, Het^1, or Het^2; wherein each C_{3-7}cycloalkyl, aryl, Het^1, and Het^2 may be optionally substituted with one or more groups selected from oxo, C_{1-6}alkyloxy, C_{1-6}alkyl,
C_{1-6}alkylsulfonyl, aminosulfonyl, amino, C_{1-6}alkylcarbonylamino, hydroxyC_{1-6}alkyl, cyano, C_{1-6}alkyloxycarbonyl, aminocarbonyl, halogen or trifluoromethyl, wherein each amino maybe mono- or disubstitued with C_{1-6}alkyl;

$\mathbf{R_4}$ is selected from the group comprising hydrogen, C_{1-4}alkyloxycarbonyl, carboxyl, aminocarbonyl, mono- or di(C_{1-4}alkyl)aminocarbonyl, C_{3-7}cycloalkyl, C_{2-6}alkenyl, C_{2-6}alkynyl, or C_{1-6}alkyl optionally substituted with one or more substituents each independently selected from aryl, Het^1, Het^2, C_{3-7}cycloalkyl, C_{1-4}alkyloxycarbonyl, carboxyl, aminocarbonyl, mono- or di(C_{1-4}alkyl)aminocarbonyl, aminosulfonyl, C_{1-4}alkyl-$S(=O)_t$, hydroxy, cyano, halogen and amino optionally mono- or disubstituted where the substituents are each independently selected from C_{1-4}alkyl,

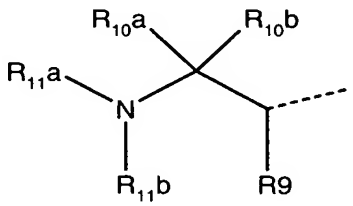
aryl, arylC_{1-4}alkyl, C_{3-7}cycloalkyl, C_{3-7}cycloalkylC_{1-4}alkyl, Het^1, Het^2, Het^1C_{1-4}alkyl and Het^2C_{1-4}alkyl; ~~and~~

t is zero, one or two; and

R_6, and **R_8** are as defined in step (a) and

13. (Original) The method according to claim 12, wherein

R_1 is a radical of formula (10)



(10)

R_9, R_{10a} and R_{10b} are, each independently, hydrogen, C_{1-4}alkyloxycarbonyl, carboxyl, aminocarbonyl, mono- or di(C_{1-4}alkyl)aminocarbonyl, C_{3-7}cycloalkyl, C_{2-6}alkenyl, C_{2-6}alkynyl or C_{1-4}alkyl optionally substituted with aryl, Het^1, Het^2, C_{3-7}cycloalkyl, C_{1-4}alkyloxycarbonyl, carboxyl, aminocarbonyl, mono- or di(C_{1-4}alkyl)-aminocarbonyl, aminosulfonyl, C_{1-4}alkyl$S(O)_t$, hydroxy, cyano, halogen or amino optionally mono- or disubstituted where the substituents are each independently selected from C_{1-4}alkyl, aryl, arylC_{1-4}alkyl, C_{3-7}cycloalkyl, C_{3-7}cycloalkyl-C_{1-4}alkyl, Het^1, Het^2, Het^1C_{1-4}alkyl and Het^2C_{1-4}alkyl;

whereby **R_9, R_{10a}** and the carbon atoms to which they are attached may also form a C_{3-7}cycloalkyl radical;

R_{11b} is hydrogen, C_{3-7}cycloalkyl, C_{2-6}alkenyl, C_{2-6}alkynyl, aryl, Het^1, Het^2 or C_{1-4}alkyl optionally substituted with halogen, hydroxy, C_{1-4}alkyl$S(=O)_t$, aryl, C_{3-7}cycloalkyl, Het^1, Het^2, amino optionally mono- or disubstituted where the substituents are each independently selected from C_{1-4}alkyl, aryl, arylC_{1-4}alkyl, C_{3-7}cycloalkyl, C_{3-7}cycloalkylC_{1-4}alkyl, Het^1, Het^2, Het^1C_{1-4}alkyl and Het^2C_{1-4}alkyl;

whereby **R_{11b}** may be linked to the remainder of the molecule via a sulfonyl group;

t is zero, one or two;

L is -C(=O)-, -O-C(=O)-, -NR_{12}-C(=O)-, -O–C_{1-6}alkanediyl-C(=O)-, -NR_{12}-C_{1-6}alkanediyl-C(=O)-, -$S(=O)_2$-, -O-$S(=O)_2$-, -NR_{12}-$S(=O)_2$ whereby either the C(=O) group or the $S(=O)_2$ group is attached to the NR_2 moiety; whereby the

C_{1-6}alkanediyl moiety is optionally substituted with a substituent selected from hydroxy, aryl, Het^1, and Het^2;

$\mathbf{R_{12}}$ is hydrogen, C_{1-6}alkyl, C_{2-6}alkenyl, arylC_{1-6}alkyl, C_{3-7}cycloalkyl, C_{3-7}cycloalkylC_{1-6}alkyl, aryl, Het^1, Het^1C_{1-6}alkyl, Het^2, Het^2C_{1-6}alkyl; and

$\mathbf{R_4}$ is hydrogen, C_{1-4}alkyloxycarbonyl, carboxyl, aminocarbonyl, mono- or di(C_{1-4}alkyl)aminocarbonyl, C_{3-7}cycloalkyl, C_{2-6}alkenyl, C_{2-6}alkynyl, or C_{1-6}alkyl optionally substituted with one or more substituents selected from aryl, Het^1, Het^2, C_{3-7}cycloalkyl, C_{1-4}alkyloxycarbonyl, carboxyl, aminocarbonyl, mono- or di(C_{1-4}alkyl)-aminocarbonyl, aminosulfonyl, C_{1-4}alkyl$S(=O)_t$, hydroxy, cyano, halogen and amino optionally mono- or disubstituted where the substituents are selected from C_{1-4}alkyl, aryl, arylC_{1-4}alkyl, C_{3-7}cycloalkyl, C_{3-7}cycloalkyl–C_{1-4}alkyl, Het^1, Het^2, Het^1C_{1-4}alkyl and Het^2C_{1-4}alkyl.

14. (Currently Amended) The method according to claim 12 ~~any one of claims 12 to 13~~, wherein one or more of the following restrictions apply:

$\mathbf{R_1}$ is hydrogen, Het^1, Het^2, aryl, Het^1C_{1-6}alkyl, Het^2C_{1-6}alkyl, arylC_{1-6}alkyl, more in particular, R_1 is a saturated or partially unsaturated monocyclic or bicyclic heterocycle having 5 to 8 ring members, which contains one or more heteroatom ring members selected from nitrogen, oxygen or sulfur and which is optionally substituted, or phenyl optionally substituted with one or more substituents;

$\mathbf{R_2}$ is hydrogen;

L is -C(=O)-, -O-C(=O)-, -O–C_{1-6}alkanediyl-C(=O)-, more in particular, L is -O-C(=O)- or -O–C_{1-6}alkanediyl-C(=O)-, whereby in each case the C(=O) group is attached to the NR_2 moiety;

$\mathbf{R_3}$ is arylC_{1-4}alkyl, in particular, arylmethyl, more in particular phenylmethyl;

$\mathbf{R_4}$ is optionally substituted C_{1-6}alkyl, in particular unsubstituted C_{1-6}alkyl or C_{1-6}alkyl optionally substituted with one or more substituents selected from aryl, Het^1, Het^2, C_{3-7}cycloalkyl and amino optionally mono- or disubstituted where the substituents are selected from C_{1-4}alkyl, aryl, Het^1 and Het^2;

$\mathbf{R_6}$ is hydrogen or methyl; and

$\mathbf{R_8}$ is hydrogen or methyl.

15. (Currently Amended) The method according to claim 12~~any one of claims 12 to 14~~, wherein

$\mathbf{R_1}$-**L** is Het^1-O-C(=O), Het^2-C_{1-6}alkanediyl-O-C(=O), aryl-O-C_{1-6}alkanediyl-C(=O) or aryl—C(=O).

16. (Currently Amended) The method according to claim 12~~any one of claims 12 to 15~~, wherein

NR_6R_8 is amino, monomethylamino or dimethylamino.

17. (Currently Amended) The method according to claim 12 ~~to any one of claims 12 to 16~~, wherein

R_1 is a Het^1, or a Het^1C_{1-6}alkyl, and

L is –O-C(=O)-;

R_2 is hydrogen;

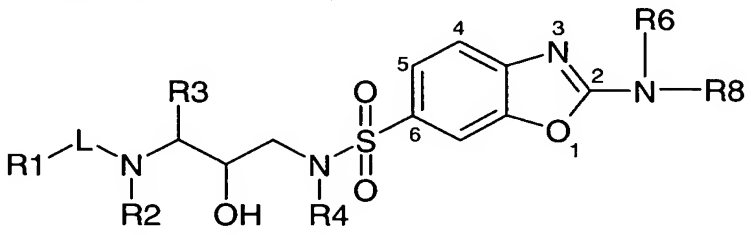
R_3 is phenylmethyl;

R_4 is isobutyl;

R_6 is hydrogen; and

R_8 is hydrogen or methyl.

18. (Currently Amended) The method according to claim 12~~any one of claims 12 to 17~~, wherein compound (9) has formula (9''').



(9''')

19. (Currently Amended) The method according to claim 12~~any one of claims 12 to 18~~, wherein the ~~characterized in that~~ compound of formula (9) is in the form of a salt selected from trifluoroacetate, fumarate, chloroacetate and methanesulfonate.

20. (Cancelled).